

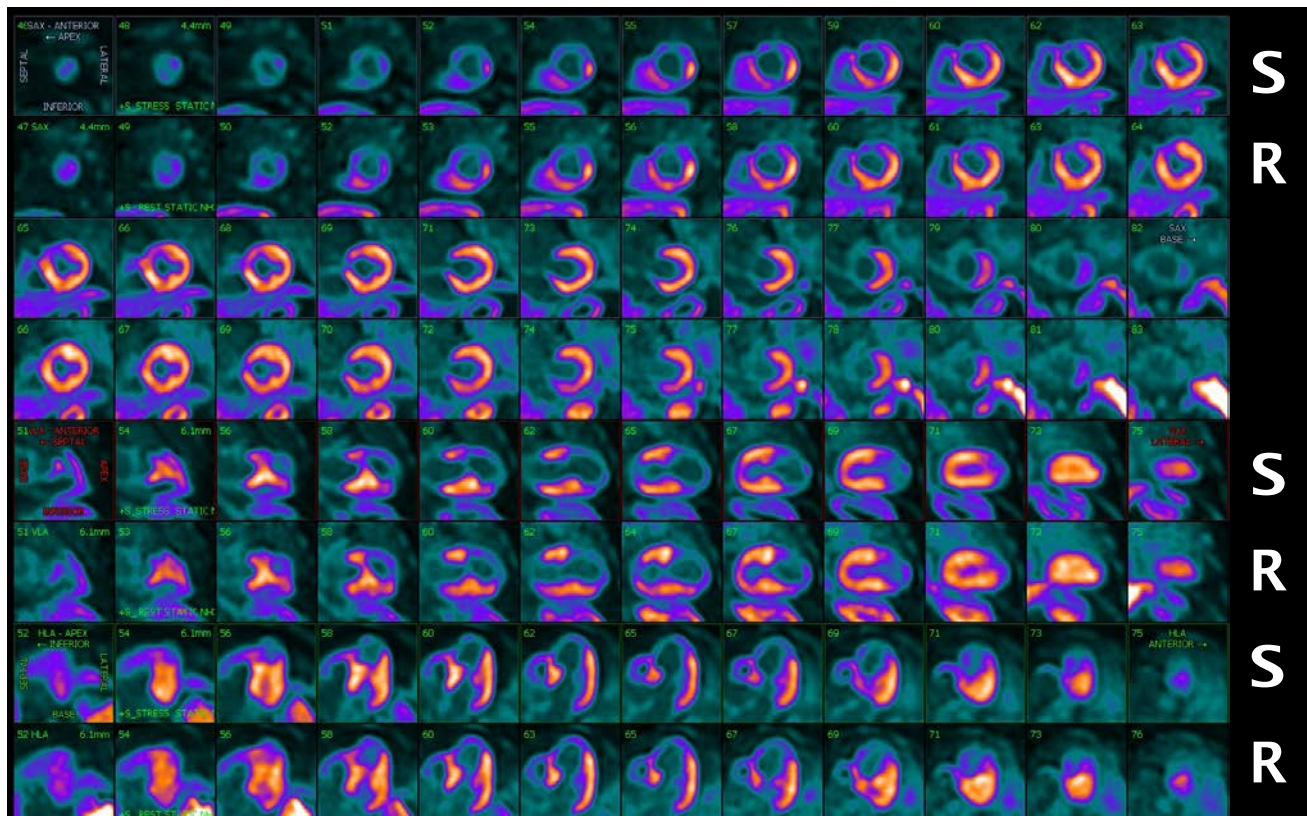
CASE STUDY:

Partially-Fixed Perfusion Defect with Partial Reversibility

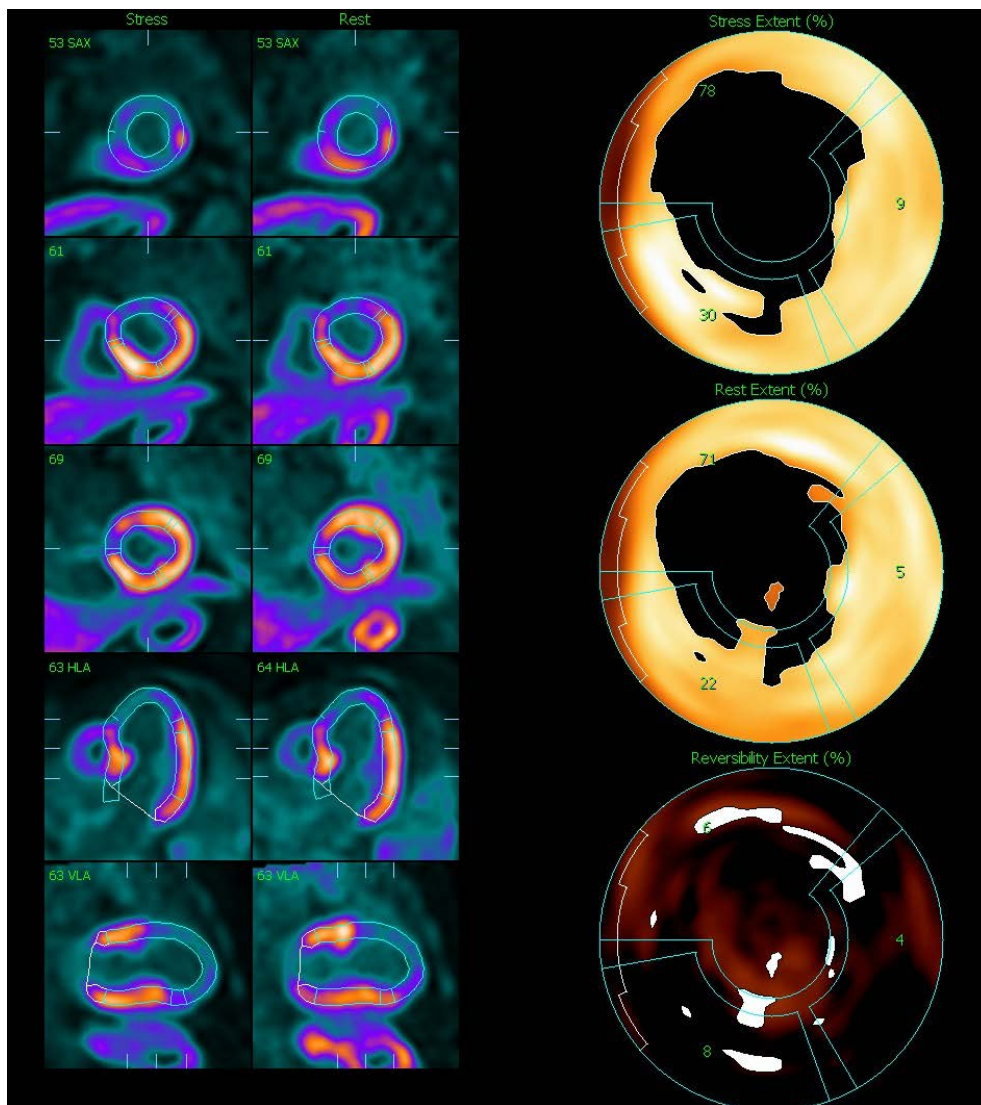
University of Kansas Medical Center

55 yo. F with history of HTN, dyslipidemia, type II diabetes, obesity status post gastric sleeve surgery, obstructive sleep apnea, bilateral carotid stenosis, CKD stage V secondary to diabetic nephropathy s/p AV fistula (not on HD, being considered for renal transplant) who presented to the hospital with chief complaint of shortness of breath for 2 to 3 weeks. No episodes of chest pain. Labs in the Emergency Department demonstrated elevated BNP and troponin (1.02). Electrocardiogram was normal.

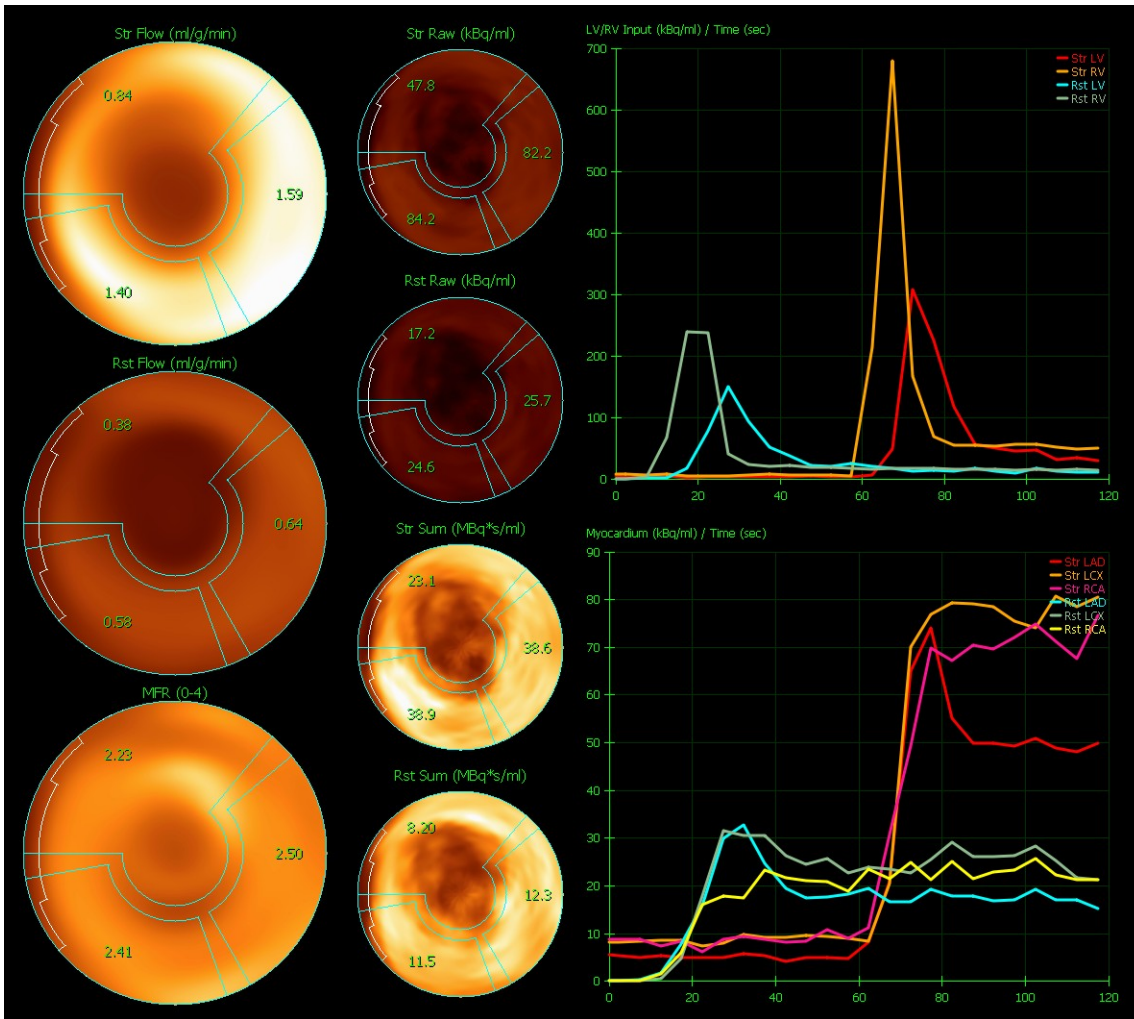
She was admitted to the hospital with concern for non-ST-elevation myocardial infarction. Repeat troponin was 0.91. A transthoracic echocardiogram revealed regional wall motion abnormalities in the basal inferior and inferoseptal wall segments. Due to her severe renal dysfunction coronary angiogram was deferred in favor of Regadenoson MPI PET-CT. This was felt to be a better option to avoid iodinated contrast and still assess for myocardial ischemia and/or injury.



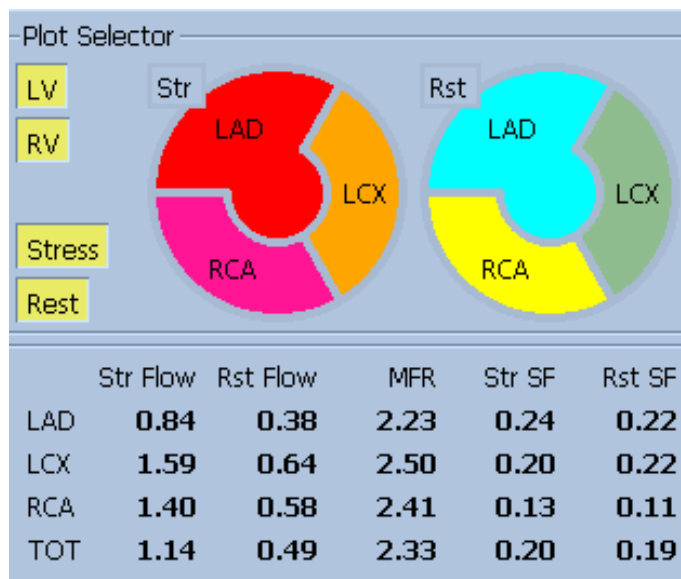
Regadenoson MPI PET-CT demonstrated severe three-vessel coronary calcium and prominent perfusion defects in the left anterior descending (LAD) and right coronary artery (RCA) territories. The perfusion defects were felt to be at least partially reversible, especially in the LAD distribution. In addition, PET-CT also identified a small pericardial effusion, diffuse pulmonary edema, and bilateral pleural effusions which contributed to further risk stratification.



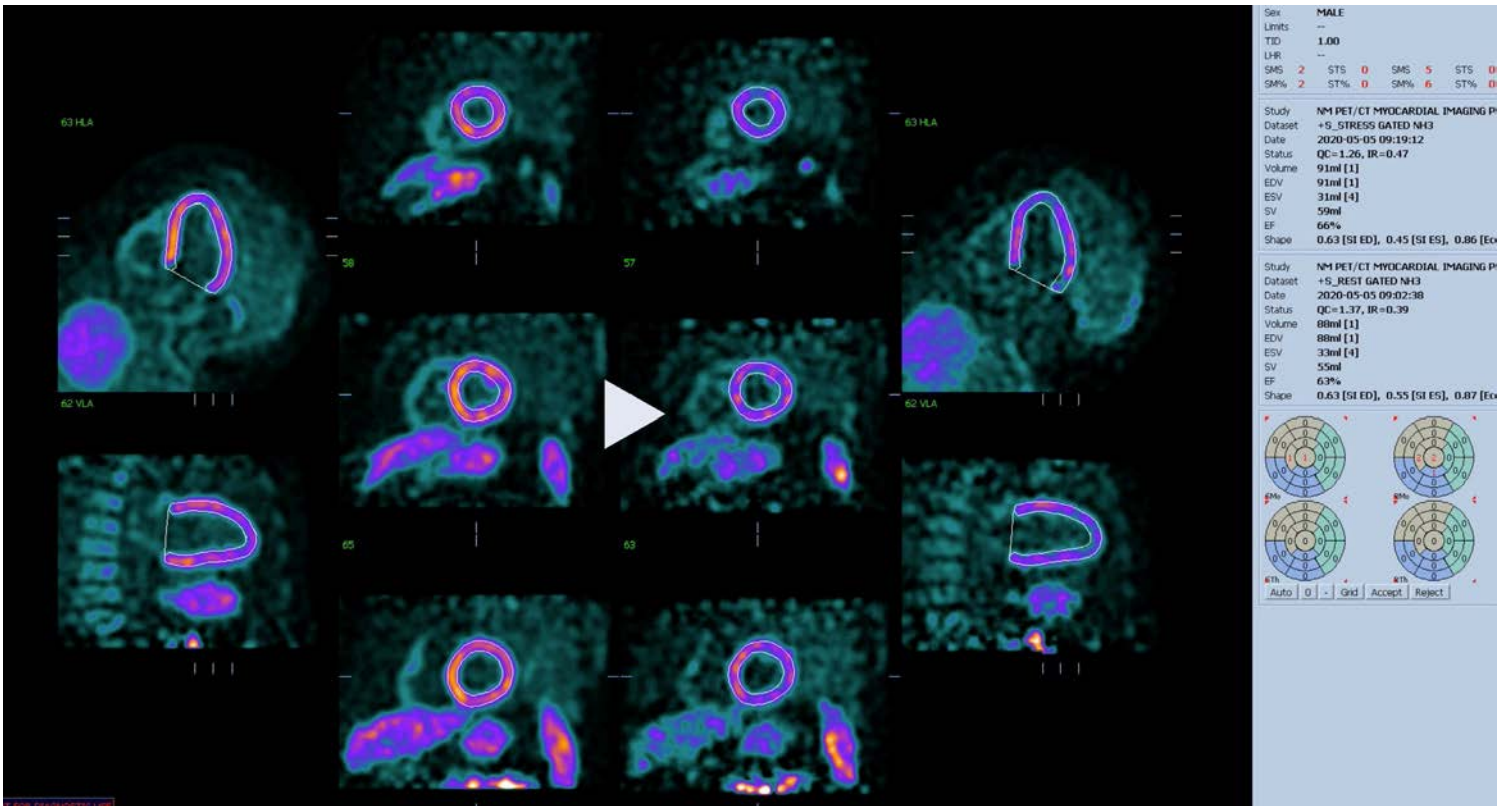
Stress / Rest and Reversibility Extent Ischemia Percentage



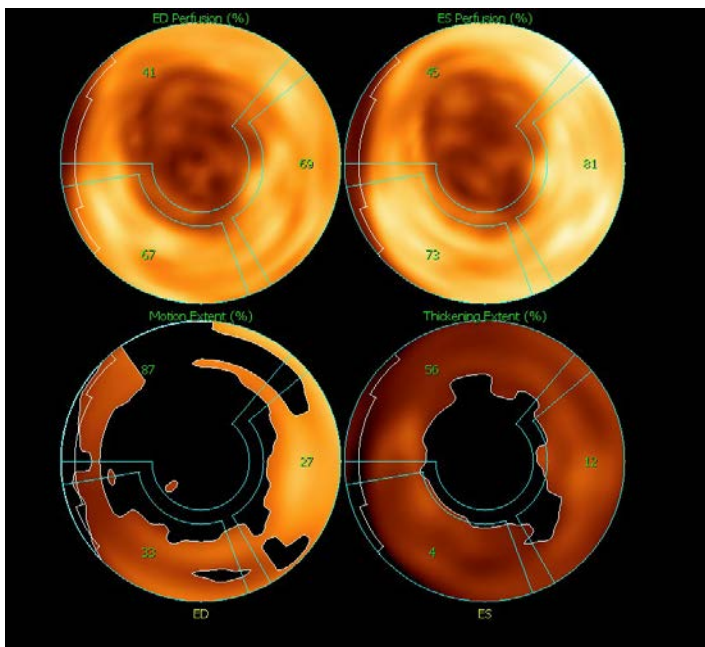
Global and Regional Myocardial Blood Flow and Quality Control Curves



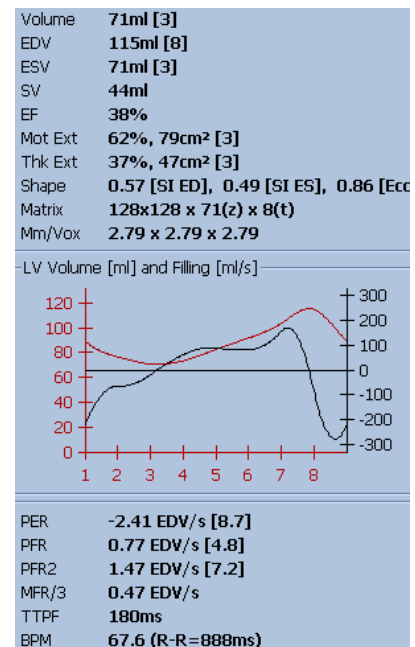
Global and Regional Myocardial Blood Flow and Quality Control Curves



Global, Regional and Reserve Myocardial Blood Flow Values Quality Control Curves. Click on image to link to video.



ED, ES, Motion, Thickening Percentages



Functional Data Including Ejection Fraction

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